INDEX TO VOLUME 122

Alphabetical Table of Contents of Authors

AARSSEN, LONNIE W. Ecological combining ability and competitive combining ability in plants: toward a general evolutionary theory of coexistence in systems of competition, 707

ALIÓ, JOSÉ JAVIER. See Andrew R. Blaustein

ANTONOVICS, JANIS. See Elizabeth P. Lacey

BAKER, DENISE L. See Lutz Wiese

BIEHL, CARL C. See S. Joseph Wright

BLACKITH, R. E. Oil in seeds revisited, 155

BLAUSTEIN, ANDREW R., ARMAND M. KURIS, and JOSÉ JAVIER ALIÓ. Pest and parasite species-richness problems, 556

BOCK, CARL E., and ROBERT E. RICKLEFS. Range size and local abundance of some North American songbirds: a positive correlation, 295

BUNDGAARD, JORGEN. See Jerry A. Coyne

BUSH, ALBERT O., and JOHN C. HOLMES. Niche separation and the broken-stick model: use with multiple assemblages, 849

CANT, JOHN G. H. See L. Alis Temerin

CARPENTER, F. LYNN. See Mark A. Hixon

CHENEY, DOROTHY L., and ROBERT M. SEYFARTH. Nonrandom dispersal in free-ranging vervet monkeys: social and genetic consequences, 392

CONNELL, JOSEPH H. On the prevalence and relative importance of interspecific competition: evidence from field experiments, 661

CONNOR, EDWARD F., EARL D. MCCOY, and B. J. COSBY. Model discrimination and expected slope-values in species-area studies, 789

CORNELL, HOWARD V. See Desmond M. Kahn

COSBY, B. J. See Edward F. Connor

COYNE, JERRY A., JORGEN BUNDGAARD, and TIMOTHY PROUT. Geographic variation of tolerance to environmental stress in *Drosophila pseudoobscura*, 474

DAWSON, PETER S. Successful selection for reduced competitive ability in *Tribolium*, 292

DUNHAM, ARTHUR E. See James F. Quinn

DUVALL, DAVID. See Brent M. Graves

FAY, PHILIP. See O. J. Reichman

FOSTER, MERCEDES S. Disruption, dispersion, and dominance in lek-breeding birds, 53

GABRIEL, WILFRIED. See Michael Lynch

GARDNER, ANDREW. See Linda Partridge

GENDRON, ROBERT P. See J. E. R. Staddon

GLASSER, JOHN W. Variation in niche breadth with trophic position: on the disparity between expected and observed species packing, 542

GRANT, A. On the evolution of brood protection in marine benthic invertebrates, 549

GRAVES, BRENT M., and DAVID DUVALL. A role for aggregation pheromones in the evolution of mammallike reptile lactation, 835

GREENBERG, RUSSELL. The role of neophobia in determining the degree of foraging specialization in some migrant warblers, 444

GREENSLADE, P. J. M. Adversity selection and the habitat template, 352

HAIRSTON, NELSON G. Alpha selection in competing salamanders: experimental verification of an a priori hypothesis, 105

HEBERT, PAUL D. N., and DAVID B. MCWALTER. Cuticular pigmentation in arctic *Daphnia:* adaptive diversification of asexual lineages? 286

HECKEL, DAVID G. See Elizabeth P. Lacey

HIXON, MARK A., F. LYNN CARPENTER, and

INDEX TO VOLUME 122

Alphabetical Table of Contents of Authors

AARSSEN, LONNIE W. Ecological combining ability and competitive combining ability in plants: toward a general evolutionary theory of coexistence in systems of competition, 707

ALIÓ, JOSÉ JAVIER. See Andrew R. Blaustein

ANTONOVICS, JANIS. See Elizabeth P. Lacey

BAKER, DENISE L. See Lutz Wiese

BIEHL, CARL C. See S. Joseph Wright

BLACKITH, R. E. Oil in seeds revisited, 155

BLAUSTEIN, ANDREW R., ARMAND M. KURIS, and JOSÉ JAVIER ALIÓ. Pest and parasite species-richness problems, 556

BOCK, CARL E., and ROBERT E. RICKLEFS. Range size and local abundance of some North American songbirds: a positive correlation, 295

BUNDGAARD, JORGEN. See Jerry A. Coyne

BUSH, ALBERT O., and JOHN C. HOLMES. Niche separation and the broken-stick model: use with multiple assemblages, 849

CANT, JOHN G. H. See L. Alis Temerin

CARPENTER, F. LYNN. See Mark A. Hixon

CHENEY, DOROTHY L., and ROBERT M. SEYFARTH. Nonrandom dispersal in free-ranging vervet monkeys: social and genetic consequences, 392

CONNELL, JOSEPH H. On the prevalence and relative importance of interspecific competition: evidence from field experiments, 661

CONNOR, EDWARD F., EARL D. MCCOY, and B. J. COSBY. Model discrimination and expected slope-values in species-area studies, 789

CORNELL, HOWARD V. See Desmond M. Kahn

COSBY, B. J. See Edward F. Connor

COYNE, JERRY A., JORGEN BUNDGAARD, and TIMOTHY PROUT. Geographic variation of tolerance to environmental stress in *Drosophila pseudoobscura*, 474

DAWSON, PETER S. Successful selection for reduced competitive ability in *Tribolium*, 292

DUNHAM, ARTHUR E. See James F. Quinn

DUVALL, DAVID. See Brent M. Graves

FAY, PHILIP. See O. J. Reichman

FOSTER, MERCEDES S. Disruption, dispersion, and dominance in lek-breeding birds, 53

GABRIEL, WILFRIED. See Michael Lynch

GARDNER, ANDREW. See Linda Partridge

GENDRON, ROBERT P. See J. E. R. Staddon

GLASSER, JOHN W. Variation in niche breadth with trophic position: on the disparity between expected and observed species packing, 542

GRANT, A. On the evolution of brood protection in marine benthic invertebrates, 549

GRAVES, BRENT M., and DAVID DUVALL. A role for aggregation pheromones in the evolution of mammallike reptile lactation, 835

GREENBERG, RUSSELL. The role of neophobia in determining the degree of foraging specialization in some migrant warblers, 444

GREENSLADE, P. J. M. Adversity selection and the habitat template, 352

HAIRSTON, NELSON G. Alpha selection in competing salamanders: experimental verification of an a priori hypothesis, 105

HEBERT, PAUL D. N., and DAVID B. MCWALTER. Cuticular pigmentation in arctic *Daphnia:* adaptive diversification of asexual lineages? 286

HECKEL, DAVID G. See Elizabeth P. Lacey

HIXON, MARK A., F. LYNN CARPENTER, and

DAVID C. PATON. Territory area, flower density, and time budgeting in hummingbirds: an experimental and theoretical analysis, 366
HOLMES, JOHN C. See Albert O. Bush
HOLT, ROBERT D. Optimal foraging and the form of the predator isocline, 521
HORROCKS, J. A., and W. HUNTE. Rank relations in vervet sisters: a critique of the role of reproductive value, 417
HOWARD, RICHARD D. Sexual selection and variation in reproductive success in a long-lived organism, 301
HUGHES, AUSTIN L. Kin selection of complex behavioral strategies, 181
HUNTE, W. See J. A. Horrocks

KAHN, DESMOND M., and HOWARD V. CORNELL. Early leaf abscission and folivores: comments and considerations, 428
KING, ANTHONY W., and STUART L. PIMM. Complexity, diversity, and stability: a reconciliation of theoretical and empirical results, 229
KURIS, ARMAND M. See Andrew R. Blaustein

LACEY, ELIZABETH P., LESLIE REAL, JANIS ANTONOVICS, and DAVID G. HECKEL. Variance models in the study of life histories, 114
LACHAISE, DANIEL. Reproductive allocation in tropical Drosophilidae: further evidence on the role of breeding-site choice, 132
LEVIN, DONALD A. Polyploidy and novelty in flowering plants, 1
LUCAS, JEFFREY R. The role of foraging time constraints and variable prey encounter in optimal diet choice, 191
LYNCH, MICHAEL, and WILFRIED GABRIEL. Phenotypic evolution and parthenogenesis, 745

MCCOY, EARL D. See Edward F. Connor
MCCOY, EARL D., and JORGE R. REY. Area-related species richness: the uses of ecological and paleontological data, 567
MCINNIS, DONALD O. Chromosomal variation in the screwworm: polymorphism or cryptic species? 840
MCWALTER, DAVID B. See Paul D. N. Hebert
MARKS, P. L. On the origin of the field plants of the northeastern United States, 210
MENGES, ERIC S., and DONALD M. WALLER. Plant strategies in relation to elevation and light in floodplain herbs, 454
MITTWOCH, URSULA. Heterogametic sex chromosomes and the development of the dominant gonad in vertebrates, 159
MØHL, BERTEL. See Kenneth S. Norris

NORRIS, KENNETH S., and BERTEL MØHL. Can odontocetes debilitate prey with sound? 85

ODEN, NEAL L. See Ann K. Sakai
O'DONALD, PETER. Do female flies choose their mates? 413
OKSANEN, LAURI. Trophic exploitation and arctic phytomass patterns, 45

PARTRIDGE, LINDA, and ANDREW GARDNER. Failure to replicate the results of an experiment on the rare male effect in *Drosophila melanogaster*, 422
PATON, DAVID C. See Mark A. Hixon
PIMM, STUART L. See Anthony W. King
POLLOCK, GREGORY B. Population viscosity and kin selection, 817
POUGH, F. HARVEY. See Theodore L. Taigen
PRATT, THANE K., and EDMUND W. STILES. How long fruit-eating birds stay in the plants where they feed: implications for food dispersal, 797
PROUT, TIMOTHY. See Jerry A. Coyne.

QUINN, JAMES F. On hypothesis testing in ecology and evolution, 602

REAL, LESLIE. See Elizabeth P. Lacey
REDDINGIUS, J. On species sharing islands: comment on an article by S. J. Wright and C. C. Biehl, 830
REICHMAN, O. J., and PHILIP FAY. Comparison of the diets of a caching and non-caching rodent, 576
REY, JORGE R. See Earl D. McCoy
RICHARDS, LAURA J. Hunger and the optimal diet, 326
RICKLEFS, ROBERT E. See Carl E. Bock
ROFF, DEREK A. Development rates and the optimal body size in *Drosophila:* a reply to Ricklefs, 570

ROUGHGARDEN, JONATHAN. Competition and theory in community ecology, 583

SAKAI, ANN K., and NEAL L. ODEN. Spatial pattern of sex expression in silver maple (*Acer saccharinum* L.): Morisita's index and spatial autocorrelation, 489
SALT, GEORGE W. Roles: their limits and responsibilities in ecological and evolutionary research, 697
SAVAGEAU, MICHAEL A. *Escherichia coli* habitats, cell types, and molecular mechanisms of gene control, 732
SCHOENER, THOMAS W. Field experiments on interspecific competition, 240
SEYFARTH, ROBERT M. See Dorothy L. Cheney
SHEA, PATRICK J. See Catherine A. Toft
SHUTER, B. J., J. E. THOMAS, W. D. TAYLOR, and A. M. ZIMMERMAN. Phenotypic correlates of genomic DNA content in unicellular eukaryotes and other cells, 26
SIMBERLOFF, DANIEL. Competition theory, hypothesis testing, and other community ecological buzzwords, 626
STADDON, J. E. R., and ROBERT P. GENDRON. Optimal detection of cryptic prey may lead to predator switching, 843
STILES, EDMUND W. See Thane K. Pratt
STRONG, DONALD R., JR. Natural variability and the manifold mechanisms of ecological communities, 636

TAIGEN, THEODORE L., and F. HARVEY POUGH. Prey preference, foraging behavior, and metabolic characteristics of frogs, 509
TAYLOR, W. D. See B. J. Shuter
TEMERIN, L. ALIS, and JOHN G. H. CANT. The evolutionary divergence of Old World monkeys and apes, 335
THOMAS, J. E. See B. J. Shuter
THORNHILL, RANDY. Cryptic female choice and its implications in the scorpionfly *Harpobittacus nigriceps*, 765
TOFT, CATHERINE A., and PATRICK J. SHEA. Detecting community-wide patterns: estimating power strengthens statistical inference, 618
TURNER, BRUCE J. Does matrotrophy promote chromosomal evolution in viviparous fishes? 152

WADDINGTON, KEITH D. Pollen flow and optimal outcrossing distance, 147
WALLER, DONALD M. See Eric S. Menges
WALSH, JAMES BRUCE. Erratum. Rate of accumulation of reproductive isolation by chromosome rearrangements, 157
WIESE, LUTZ, LARAMIE A. WILLIAMS, and DENISE L. BAKER. A general and fundamental molecular bipolarity of the sex cell contact mechanism as revealed by tunicamycin and bacitracin in *Chlamydomonas*, 806
WILLIAMS, LARAMIE A. See Lutz Wiese
WINTERHALDER, BRUCE. Opportunity-cost foraging models for stationary and mobile predators, 73
WRIGHT, S. JOSEPH, and CARL C. BIEHL. Empty sites and the analysis of presence-absence data, 830

YOKOYAMA, SHOZO. Social interaction in human populations: fitness interaction among sibs, 433

ZIMMERMAN, A. M. See B. J. Shuter

Alphabetical Table of Contents of Titles

Adversity selection and the habitat template. P. J. M. Greenslade, 352
Alpha selection in competing salamanders: experimental verification of an a priori hypothesis. Nelson G. Hairston, 105
Area-related species richness: the uses of ecological and paleontological data. Earl D. McCoy and Jorge R. Rey, 567

Can odontocetes debilitate prey with sound? Kenneth S. Norris and Bertel Møhl, 85
Chromosomal variation in the screwworm: polymorphism or cryptic species? Donald O. McInnis, 840
Comparison of the diets of a caching and noncaching rodent. O. J. Reichman and Philip Fay, 576
Competition and theory in community ecology. Jonathan Roughgarden, 583
Competition theory, hypothesis testing, and other community ecological buzzwords. Daniel Simberloff, 626
Complexity, diversity, and stability: a reconciliation of theoretical and empirical results. Anthony W. King and Stuart L. Pimm, 229
Cryptic female choice and its implications in the scorpionfly *Harpobittacus nigriceps*. Randy Thornhill, 765
Cuticular pigmentation in arctic *Daphnia:* adaptive diversification of asexual lineages? Paul D. N. Hebert and David B. McWalter, 286

Detecting community-wide patterns: estimating power strengthens statistical inference. Catherine A. Toft and Patrick J. Shea, 618
Development rates and the optimal body size in *Drosophila:* a reply to Ricklefs. Derek A. Roff, 570
Disruption, dispersion, and dominance in lek-breeding birds. Mercedes S. Foster, 53
Do female flies choose their mates? Peter O'Donald, 413
Does matrotrophy promote chromosomal evolution in viviparous fishes? Bruce J. Turner, 152

Early leaf abscission and folivores: comments and considerations. Desmond M. Kahn and Howard V. Cornell, 428
Ecological combining ability and competitive combining ability in plants: toward a general evolutionary theory of coexistence in systems of competition. Lonnie W. Aarssen, 707
Empty sites and the analysis of presence-absence data. S. Joseph Wright and Carl C. Biehl, 830
Erratum. Rate of accumulation of reproductive isolation by chromosome rearrangements. James Bruce Walsh, 157
Eschericia coli habitats, cell types, and molecular mechanisms of gene control. Michael A. Savageau, 732
The evolutionary divergence of Old World monkeys and apes. L. Alis Temerin and John G. H. Cant, 335

Failure to replicate the results of an experiment on the rare male effect in *Drosophila melanogaster*. Linda Partridge and Andrew Gardner, 422
Field experiments on interspecific competition. Thomas W. Schoener, 240

A general and fundamental molecular bipolarity of the sex cell contact mechanism as revealed by tunicamycin and bacitracin in *Chlamydomonas*. Lutz Wiese, Laramie A. Williams, and Denise L. Baker, 806
Geographic variation of tolerance to environmental stress in *Drosophila pseudoobscura*. Jerry A. Coyne, Jorgen Bundgaard, and Timothy Prout, 474

Heterogametic sex chromosomes and the development of the dominant gonad in vertebrates. Ursula Mittwoch, 159
How long fruit-eating birds stay in the plants where they feed: implications

for food dispersal. Thane K. Pratt and Edmund W. Stiles, 797
Hunger and the optimal diet. Laura J. Richards, 326

Kin selection of complex behavioral strategies. Austin L. Hughes, 181

Model discrimination and expected slope-values in species-area studies. Edward F. Connor, Earl D. McCoy, and B. J. Cosby, 789

Natural variability and the manifold mechanisms of ecological communities. Donald R. Strong, Jr., 636
Niche separation and the broken-stick model: use with multiple assemblages. Albert O. Bush and John C. Holmes, 849
Nonrandom dispersal in free-ranging vervet monkeys: social and genetic consequences. Dorothy L. Cheney and Robert M. Seyfarth, 392

Oil in seeds revisited. R. E. Blackith, 155
On hypothesis testing in ecology and evolution. James F. Quinn and Arthur E. Dunham, 602
On species sharing islands: comment on an article by S. J. Wright and C. C. Biehl. J. Reddingius, 830
On the evolution of brood protection in marine benthic invertebrates. A. Grant, 549
On the origin of the field plants of the northeastern United States. P. L. Marks, 210
On the prevalence and relative importance of interspecific competition: evidence from field experiments. Joseph H. Connell, 661
Opportunity-cost foraging models for stationary and mobile predators. Bruce Winterhalder, 73
Optimal detection of cryptic prey may lead to predator switching. J. E. R. Staddon and Robert P. Gendron, 843
Optimal foraging and the form of the predator isocline. Robert D. Holt, 521

Pest and parasite species-richness problems. Andrew R. Blaustein, Armand M. Kuris, and José Javier Alió, 556
Phenotypic correlates of genomic DNA content in unicellular eukaryotes and other cells. B. J. Shuter, J. E. Thomas, W. D. Taylor, and A. M. Zimmerman, 26
Phenotypic evolution and parthenogenesis. Michael Lynch and Wilfried Gabriel, 745
Plant strategies in relation to elevation and light in floodplain herbs. Eric S. Menges and Donald M. Waller, 454
Pollen flow and optimal outcrossing distance, Keith D. Waddington, 147
Polyploidy and novelty in flowering plants. Donald A. Levin, 1
Population viscosity and kin selection. Gregory B. Pollock, 817
Prey preference, foraging behavior, and metabolic characteristics of frogs. Theodore L. Taigen and F. Harvey Pough, 509

Rank relations in vervet sisters: a critique of the role of reproductive value. J. A. Horrocks and W. Hunte, 417
Range size and local abundance of some North American songbirds: a positive correlation. Carl E. Bock and Robert E. Ricklefs, 295
Reproductive allocation in tropical Drosophilidae: further evidence on the role of breeding-site choice. Daniel Lachaise, 132
A role for aggregation pheromones in the evolution of mammallike reptile lactation. Brent M. Graves and David Duvall, 835
The role of foraging time constraints and variable prey encounter in optimal diet choice. Jeffrey R. Lucas, 191
The role of neophobia in determining the degree of foraging specialization in some migrant warblers. Russell Greenberg, 444
Roles: their limits and responsibilities in ecological and evolutionary research. George W. Salt, 697

Sexual selection and variation in reproductive success in a long-lived organism. Richard D. Howard, 301
Social interaction in human populations: fitness interaction among sibs. Shozo Yokoyama, 433
Spatial pattern of sex expression in silver maple (*Acer saccharinum* L.):

Morisita's index and spatial autocorrelation. Ann K. Sakai and Neal L. Oden, 489
Successful selection for reduced competitive ability in *Tribolium*. Peter S. Dawson, 292

Territory area, flower density, and time budgeting in hummingbirds: an experimental and theoretical analysis. Mark A. Hixon, F. Lynn Carpenter, and David C. Paton, 366
Trophic exploitation and arctic phytomass patterns. Lauri Oksanen, 45

Variance models in the study of life histories. Elizabeth P. Lacey, Leslie Real, Janis Antonovics, and David G. Heckel, 114
Variation in niche breadth with trophic position: on the disparity between expected and observed species packing. John W. Glasser, 542